R E P O R T R E S U M E S

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ATTRITION RATE STUDY.

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INSTEAD OF FOCUSING ON STUDENT CHARACTERISTICS, AS DO MOST DROPOUT STUDIES, THIS ONE (1) CONSIDERS SPECIFIC INSTITUTIONAL CHARACTERISTICS OF GRADING PRACTICES, (2) ANALYZES THESE PRACTICES WITHIN A GIVEN TERM INSTEAD OF OVER SEVERAL YEARS, AND (3) BROADENS THE DEFINITION OF ATTRITION TO INCLUDE BOTH FAILURE AND WITHDRAWAL. IT ATTEMPTS TO IDENTIFY THE INSTRUCTIONAL AREAS WHERE THE GREATEST STUDENT LOSS OCCURS AND, BY SO DOING, TO PREDICT STUDENT ACHIEVEMENT FROM THE PREDICTION CRITERIA THEMSELVES, RATHER THAN FROM THE STUDENT ATTRIBUTES. AN EXISTING RECORDS SYSTEM FOR ENROLLMENT AND GRADE STUDIES WAS MODIFIED TO PRODUCE SUMMARIES OF GRADE DISTRIBUTION AND ATTRITION RATE BY INSTRUCTOR AND ACADEMIC UNIT. THE SYSTEM PERMITS THE COMBINATION OF ENROLLMENT AND LETTER GRADES DATA FROM TWO CARDS ON ONE SUMMARY CARD AND THE CONVERSION OF THE GRADE DATA INTO PERCENTAGES OF ORIGINAL ENROLLMENT. IT CAN ALSO SHOW PERCENTAGES OF THOSE WITH OTHER GRADES (AUDITS, DROPS, INCOMPLETES, ETC.), AND A STUDENT'S GPA. THE PRINTOUTS INCLUDE AN ALPHABETICAL LISTING BY INSTRUCTOR, A RANK ORDER LISTING OF THE ATTRITION RATE OF HIS STUDENTS, AND LISTINGS IN EACH ORDER BY COURSE, DEPARTMENT, DIVISION, AND FOR THE WHOLE SCHOOL. THE SYSTEM CAN ALSO BE CODED TO GENERATE OTHER LISTINGS FOR VARIOUS SUB-GROUPS. CONCLUSIONS FROM THE ASSEMBLED DATA ARE NOT SHOWN. (HIH)

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ATTRITION RATE STUDY

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The student attrition rate is a problem of national concern for colleges and universities in general and junior colleges in particular. In general usage, the term attrition rate refers to the proportion of students withdrawing from college or failing to re-enroll after one or more terms after original entry but prior to completion of their program of study. The literature is replete with studies of this problem and, in general, these studies have tended to focus on student characteristics associated with the dropout. The present study differs from this general pattern in three ways: first, the focus is on the specific institutional characteristic of grading practices rather than on student characteristics per se. Second, the study is based on an analysis of these grading practices within a given term rather than following the student dropout rate over a period of several years. Third, the definition of attrition rate as used here is broader than that in general use and refers to the proportion of students in a given section or other academic unit who either fail or withdraw. Thus, for this study a student is counted once for each course in which he was enrolled. The rationale for combining the failures and withdrawals is that both of these result in the student receiving no credit for a course in which he enrolled for credit. Also, in the junior college there is a tendency for students to withdraw unofficially by ceasing to attend classes. The resulting

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failing grades actually represent a withdrawal but are not distinguishable as such through present records.

The importance of this study is that it helps to identify those areas within the instructional program where the greatest student loss occurs. The results for the total college provide a normative standard against which to evaluate variations within the institution. They also provide for the inter-institutional comparison with normative data collected from similar institutions in a state and national sample. The results are expected to serve to identify problem areas within the instructional program --- they will not necessarily point to solutions which may be related to other factors such as curriculum, academic policies or procedures, or such student characteristics as aptitude, prior achievement and experience, motivation, or outside activities. Undoubtedly, student achievement like other forms of human behavior, is determined by multiple factors. However, studies of the prediction of student achievement have tended to concentrate on factors within the student rather than investigating the criterion itself. It is on this criterion that this study is focused.

While beyond the scope of this study, it is quite apparent that there are other standards available for evaluating the criterion of grade distributions and attrition rate. For the junior college college parallel transfer programs, student achievement after transfer to senior insti-

tutions may be compared with grades earned in the junior college. This type of comparison is of primary importance in the evaluation of a junior college program. That it has not gone unnoticed is indicated by the attention given to this area in research on the junior college by such studies as the one by Knoell and Medsker.[1]

The present study outlines a data processing system for producing attrition rate data, as defined above, for Miami-Dade Junior College. The system was built on an already existing records system which is quite sophisticated in terms of the efficiency with which it provides comprehensive data on enrollment and grade summaries. With this data already in machineable form, it has been possible to extend the system to produce more easily comprehensible summaries of these grade distributions and attrition rate by instructor and academic unit. The system is outlined in the attached flow chart. In brief the system provides for the combination of data on enrollment and grades from two cards into one summary card, and the conversion of the number of letter grades and so forth into percentages of original enrollment. In addition to the letter grades, the summary report shows percentages of those receiving other grades (Audits and Incompletes), Drops, Attrition Rate (AR), and the Grade Point

[1] Dorothy M. Knoell and Leland L. Medsker, From Junior to Senior College: A National Study of the Transfer Student (Washington: American Council on Education, 1965).

Average (GPA). The printouts include an alphabetical listing of this data by instructor, plus a rank order listing by instructor in order of attrition rate. Likewise, listings in each order are printed out by course, department, division and the total campus or center. Although not included as a routine part of this system, coding included in the Instructor Attrition Rate Summary Card provides for the generation of other types of listings for various sub-groups (e.g., the rank order listing of instructors within a given department or division).

A sample printout of the Instructor Attrition Rate Report is included in the appendix along with a card layout of the Attrition Rate Summary Card.

The following equipment is utilized in this project:

IBM	084	Sorter
IBM	088	Collator
IBM	1620	Computer

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ATTRITION RATE SUMMARY CARD

Card Field	Columns From	Columns Thru	Remarks
Instructor Name	1	18	From Grade List Summary Card
Course Abbreviation	19	21	From Grade List Summary Card
Course Number	22	24	From Grade List Summary Card
Original Enrollment	25	29	From Class Roll Summary Card
Percent of A's	30	32	Generated by Computer
Percent of B's	33	35	
Percent of C's	36	38	
Percent of D's	39	41	
Percent of F's	42	44	
Percent of Other	45	47	
Percent of Drops	48	50	
Attrition Rate	51	53	
GPA	54	56	
Center or Campus		57	
Division		58	
Department	59	60	
Year and Term	61	62	
Blank	63	65	
Semester Hours	66	71	
Card Code		80	Card 1 Instructor ARSC Card 2 Course ARSC Card 3 Department ARSC Card 4 Division ARSC Card 5 Center or Campus ARSC

Card 1 All Fields Punched
Card 2 Drop cc 1-18
Card 3 Drop cc 1-24
Card 4 Drop cc 1-24, 59-60
Card 5 Drop cc 1-24, 58-60

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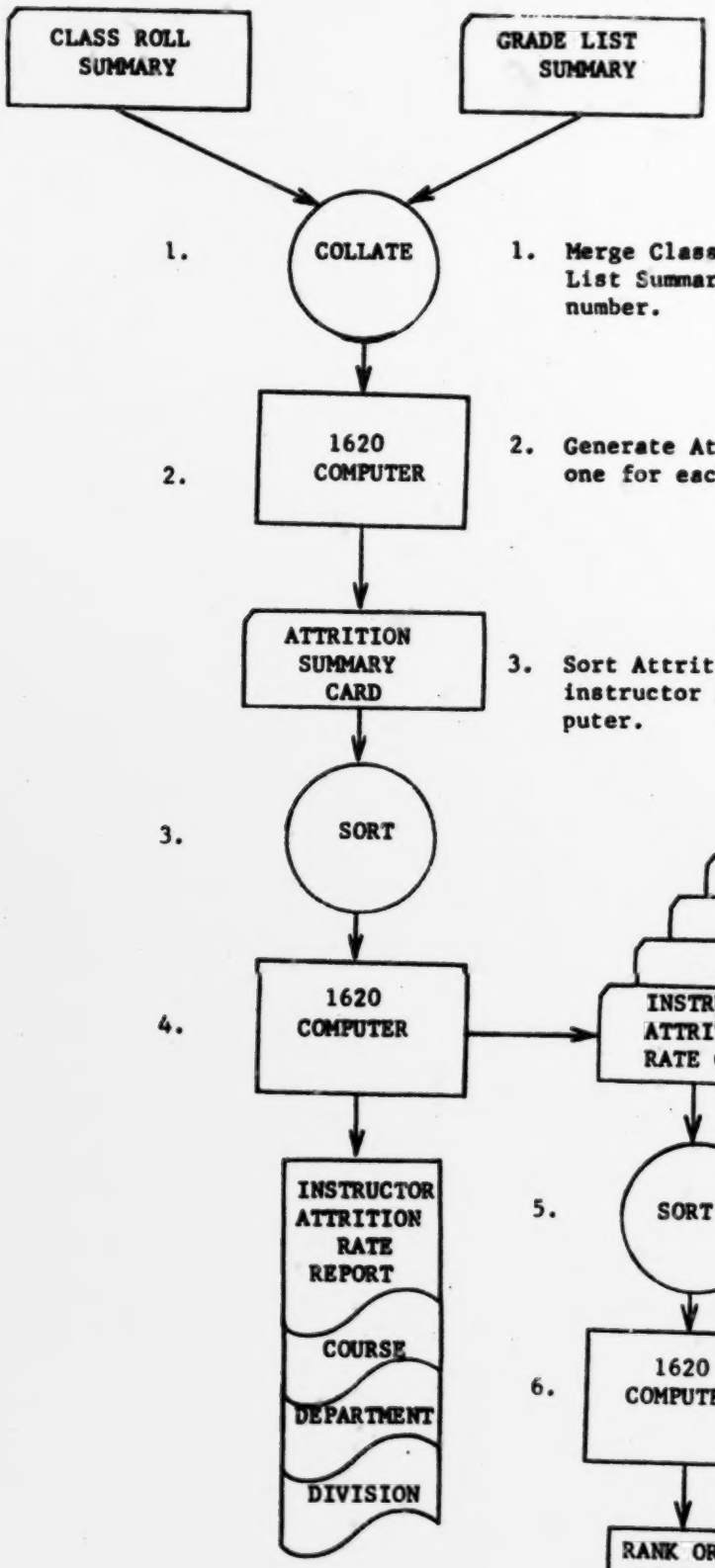
ATTRITION RATE STUDY



1. Merge Class Roll Summary and Grade List Summary Cards by sequence number.

2. Generate Attrition Summary Card, one for each sequence number.

3. Sort Attrition Summary Cards by instructor and feed to the computer.

4. Generate Instructor Attrition Rate Report and punch Instructor Attrition Rate Card.

5. Sort Instructor Attrition Rate Card in order of attrition rate.

6. Generate Rank Order List of Instructor Attrition Rate.

7. Repeat Step 3, sorting by course and repeating steps 4 and thereafter to produce Course Attrition Rate Report, Course Attritiom Rate Card, and Rank Order List of Course Attrition Rate.

8. Repeat Step 3, sorting by Diwision and Department, and repeatingg steps 4 and thereafter to produce Department, Division and Center Attrition Rate Report, Attrition Rate cards for each of these, and the Rank Order List of Attrition Rate for Departments, Divisions, and Center.

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PROPOSED SAMPLE REPORT

MIAMI-DADE JUNIOR COLLEGE

DATE RUN - MAY 3, 1966

GRADE DISTRIBUTION AND ATTRITION RATE REPOR

INSTRUCTOR NAME	CRS ABB	CRS NO	ON	A	B	C	D	F	OTHER	DRO
DUERSTOCK JOSEPH	DAP	601	65	10.0	22.3	32.3	12.2	9.6	1.8	11
DUERSTOCK JOSEPH	DAP	602	26	11.0	23.3	32.3	11.2	8.6	1.8	11
DUERSTOCK JOSEPH	TOTAL		91	10.0	22.3	32.3	12.2	9.6	1.8	11

COLLEGE

ITION RATE REPORT PERIOD COVERED - SPRING 65-66

F	OTHER	DROPS	AR	GPA	DIV	DEPT	CTR
.6	1.8	11.9	21.5	2.13	4	14	1
.6	1.8	11.9	20.5	2.23	4	14	1
.6	1.8	11.9	21.5	2.13	4	14	1

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